FIRST ANIMAL HOSTEL OF ITS KIND IN INDIA – AKODARA, GUJARAT

Preface:

As a path breaking initiative, an animal hostel perhaps the only one of its kind in India has begun at Akodara village of Sabarkantha District. It was visited and studied by SIRD on 16.5.2011.The information and data collected are based on secondary data available at site and primary data through interaction with stakeholders.

Background:

The animal hostel, a concept conceived by Hon. Chief Minister, Gujarat State Shri Narendra Modi was envisaged as a place where the cattle of the village are kept and maintained together and have all necessary infrastructure facilities to take care of them. It has been conceptualized as a sustainable management model.

Animal hostel project was started after a feasibility study and identification of suitable location. The Department of Animal Husbandry has been the nodal agency of this project and WAPCOS Limited (A Government Of India undertaking), Gandhinagar have worked as their consultant in conducting a socio-economic and environmental feasibility as well as in developing the prototype model of the project at Akodara village, Sabarkantha district.

About Animal Hostel:

Akodara village is located between 23.31 N latitude and 73.00 E longitude, is situated 7 km away from Himatnagar, District HQ of Sabarkantha District (on Himatnagar Ranasan highway). Akodara village has a good road connectivity and village based milk co

operative which is a part of Sabarkantha District Milk Co – Operative Union. This is a well developed dairy union with good rapport and opinion among local people. Out of the 215 families, 205 families are animal owners and they are keenly enthusiastic about the project. Keeping this view Akodara, was selected as a first demonstration model. After taking into account the cattle strength, the animal hostel with a capacity of 900 animals has been constructed in the village. The facilities in the hostel include in house fodder production in the nearby gaucher land, fodder storage, electricity generation through bio gas plants vermin compost production, milk collection room, veterinary service centre and a water storage tank.

The unit of animal hostel which was visited has 22 sheds having capacity of 24 cattle each. The unit has a capacity of 528 cattle along with equipments like fodder storage facilities and automatic watering system. Unit cost for one shed is Rs.7.25 Lac. One shed can be shared by more than one family. Beneficiaries have to pay Rs.5000 per animal but due to donation by some philanthropists the management is charging only Rs.3600 per animal as lifetime charges.

All beneficiaries have to keep their allotted area neat and clean. There is underground water drainage system and supply of water is with enough pressure to keep the premises clean. The recipients have to collect cow dung and dump it in to gobar gas plant unit. Dumped dung is weighed and recorded for each beneficiary wwho are then paid Rs. 4/kg. Slurry of this gobar gas unit is being used for the vermin compost unit. There are two vermin compost units having capacity of 250 tonne/unit/year. The produce of these vermin compost units are used as an organic fertilizer to increase agriculture production and improved soil quality, which generates an additional income of Rs. 5 lac/year. These units are maintained by women of 7 self help groups of the village.

An area adjoining the hostel (50 hac. of gauchar land - fodder plot) has been developed with support irrigation facility by three tube wells. The management is

allotting this land to beneficiary members of the animal hostel by auction on an annual basis.

There is provision of one special common shed for sick cattle. A veterinary hospital is also there and the veterinary doctor was available when the research team visited the premises. It is learnt that he is available daily to take care of the animals.

Profile of Akodara:

1	Human Population	1145
2	Total Families	220 (APL 180; BPL 40)
3	Cattle population	1166
4	Milch Cattle	400
5	Average Daily milk collection	574 Liters (Buffalo), 583 Liters (Cow)
6	Total Land	466 ha.
7	Cultivable Land	350 ha.
8	Pasture Land	74 ha.
9	Main crops	Cotton, Castor, Wheat

Technical Features:

1	Cattle Strength	900-1000
2	Cattle shed	22+14=36
3	Elevated Water Storage Tank	1,0,00,000 Liters
4	Underground sump	80,000 Liters
5	Bio gas plants	3*85 cu.m.
6	Fodder cultivation plot	50 ha.
7	Fodder Production	3000 tonne/yr
8	Vermin Compost Production	1000 tonne/yr

Comprehensive– Collaborative- Cooperative Model:

The Animal Hostel Project is unique in terms of its concept of vertical and horizontal integration and participation. It is a Comprehensive model which includes

integration of animal husbandry, pasture development, renewable energy and eco friendly technology, organic farming and Biometrics based animal identification, It is a good collaborative model with participation by various departments/agencies of Government of Gujarat, Panchayat Raj institutions and Milk Co-operative Societies i.e Department of Animal Husbandry, District Rural Development Agency, Gujarat Land Development Corporation, Sabarkantha District Milk Co-operative union. What is unique to this project is that the village level institutions i.e. Village Milk Cooperative Society, and Akodara Gram Panchayat are the key stake holders in development of the Animal Hostel. This project also provides a good example of cooperation in terms of participation of all stakeholders in provision of technical & financial inputs. Finally, the Animal Hostel shall be managed by Akodara milk co-operative society, which in turn would create a good model of people's participation in managing personal and community resources with Government help. It is expected that the role of the Government will become over time more and more an enabling one and the model will become self-sufficient and scale able.

Eco-Technology:

Eco technologies are the tools for sustainable management of the local resources with pro-nature orientation and participation of all level people with the idea of conservation of natural resources. The Animal Hostel Project is a good example of an "Eco-technology" model for its uniqueness in people's participation, creation of alternate sources of energy, integration of animal husbandry & crop husbandry practices, reduction in use of non-renewable energy sources, promotion of organic farming, employment

generation, reduction in carbon footprint and other activities, These activities put together ensure that the hostel is a sustainable model towards achieving the objectives of the project.

Pro-Poor/Pro-Woman:

Another unique feature of the Animal Hostel is that the project is women centric and works for the poor families of the village. Animal hostel project will reduce drudgery of women in regular animal care activities and provide alternate options for their involvement in other livelihood development activities. Extra facilities and benefits have been given to BPL families of the village without any differentiation in care of animals in the hostel at lower participatory cost. This Pro-Poor and Pro-Women model will help in achieving the development of the village which is equitable and aims at economic and social justice.

Returns from the project:

The Animal Hostel Project gives multiple returns such as direct economic returns, improvement in social conditions and better environment management. Though this is a new venture and the data is too recent to allow for a comparative analysis, certain inferences can be drawn.

It is a well established fact that good animal husbandry practices act as a catalyst

for a hike in milk production which ultimately will result in higher income for the rural poor. It is seen that the animal hostel has got good returns from sale of fodder which it produced under pasture development programme and vermin compost produced in the complex .During the year 2011-12 the members collected 407227 kg cow-dung from the animals in the hostel. Farmers were paid Rs 4/Kg for the cowdung as cards have been given to each farmer-member and entries are made against the cowdung deposited . The cowdung is then used by the members of the SHG who produced 10571 Kg Vermi-compost this year. This vermin-compost was supplied to members at the rate of Rs 4/- per kg as against the present market price of Rs 5/- to Rs 7/- and members could sell or use the same. It is seen that most members have

used the compost to augment their land's soil fertility and have resulted in higher yields in their agricultural produce.

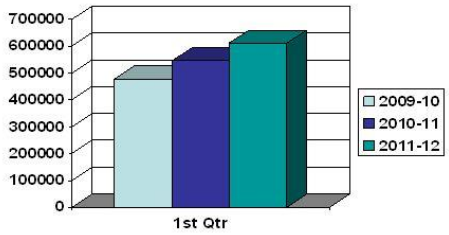
Akodara Milk Cooperative Society has stated that milk production per animal per day would increase substantially within six months after providing animal hostel infrastructure. The Table below will substantiate the argument.

Month	Milk Yield/Animal/day in liter	
	2009-10 (Before the Animals Kept in Animal Hostel	2010-11 (After the Animals Kept in Animal Hostel
Aug.	6.1	6.7
Sep.	6.2	7.0
Oct.	6.3	7.2
Nov.	6.4	7.4
Dec.	6.5	7.6
Jan.	6.7	7.7

The total milk produced during the last three years in the village is given below. It may be noted that in the year 2009-10, there was no animal hostel and hence the figures pertain to the milk production at home.

Animal Hostel- Milk Production

- Increment of milk production after inaugaration of animal hostel



Sr.no.	Year	No. of Animal	Milk (Liter)	Increment in milk production
1	2009-10	240	479122	-
2	2010-11	239	545365	66243
3	2011-12	252	611461	66096

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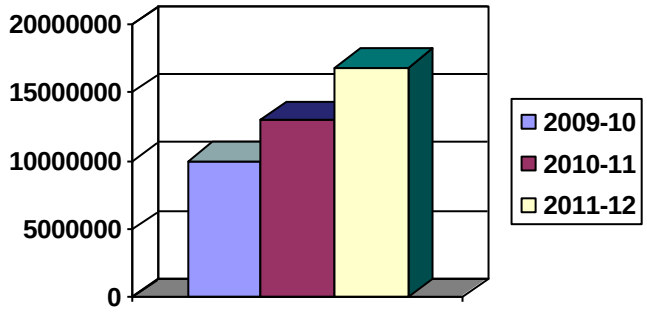
Social Returns: Earlier women were involved in drudgery in care of animals kept at their own homes. On an average, they consumed 6 hours per day per female in animal care. After the animal hostel project started the common facilities for animal care were taken up and now women do not devote more than 2 hours for animal care. A total of around 200 women are involved in animal care activities thus, there is a saving of 800 person days per month, the opportunity cost of which is about ‘ 1,00,000 per month @ ‘125 per person per day, The women would have opportunities to use these mah hours for more productive or leisure activities.

Financial Return: In addition to social returns and income from cow-dung and vermin-compost it is seen that there is a rise in the total income for the farmer s/members of the animal hostel project. Whereas , before the project began, the income of the farmers was Rs 99.99 lakhs, after the animals were put in the hostel the farmers total income rose to 1.29 crore in the first year and 1.68 crore in the present year.

Table showing the rise in Income over a period of three years:

Sr.no.	Year	Income of Owner of animals
1	2009-10	99,99,275
2	2010-11	1,29,67,099
3	2011-12	1,68,79,5,17



Graph representation of the income rise over period of three years.

Green House Gases Displacement:

Cattle are one of the highest contributors of methane (green house gas) in to the atmosphere contributing to global warming. The animal hostel project has contributed towards reduction of green house gases due to prevention of about 3.2 tones of methane emission into the atmosphere because of use of dung and urine in its gobar gas plant.

Since the methane produced in the gobar gas plant is used for the purpose of generation of 225 units of electricity per day, it in turn prevents emission of 105 tones of green house gases which otherwise would have entered into atmosphere from generation of amount of electricity from the nearby thermal power plant.

Objectives of the Project:

1	Reduction of Drudgery of Women Folk
2	Collective Village Resource Management
3	Improvement of Human Health
4	Better Management of Dung and Urine
5	Hygienic Environment
6	Integrated Animal Care
7	Production of Gobar Gas
8	Production of Organic Manures

The animal hostel project is therefore a revolutionary step in cooperative management of the cattle as well as conservation of natural resources with its unique model of integration, cooperation and conservation.